

Model: GW12-150W(12V 40Ah)

# GW Series

VLRA High Rate Discharge Battery



Legacy Canadian products designed in Canada, assembled in China.

Connecting To Legacy

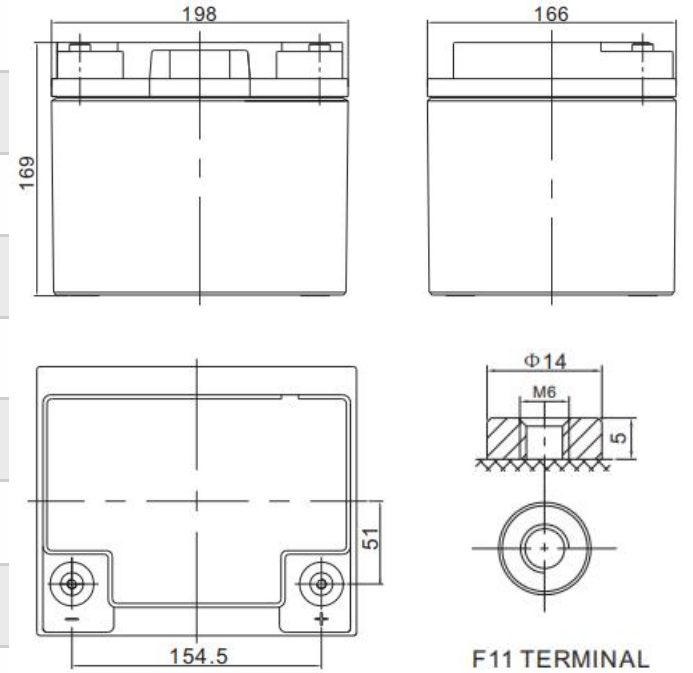
📍 Laval-Quebec-Canada

📍 Beirut-Lebanon

📍 Hongkong-China

🔍 [www.connectinglegacy.com](http://www.connectinglegacy.com)

|                    |                                                                         |
|--------------------|-------------------------------------------------------------------------|
| Introduction       | GW12-150W(12V 40Ah)                                                     |
| Length             | 198±2mm (7.80 inches)                                                   |
| Width              | 166±2mm (6.54 inches)                                                   |
| Height             | 169±2mm (6.65 inches)                                                   |
| Total Height       | 169±2mm (6.65 inches)                                                   |
| Weight             | Approx. 12.4Kg (Tolerance±5%)                                           |
| Terminal           | Default F11(M6), Value: 8~10N*m                                         |
| Container Material | A.B.S. UL94-HB, <UL94-V0 Optional>                                      |
| Design Life        | 15 years                                                                |
| Application        | UPS/EPS,Electric Tools,Toys,Medical,Wheelchair and Security System etc. |



F11 TERMINAL

GW12-150W Dimension

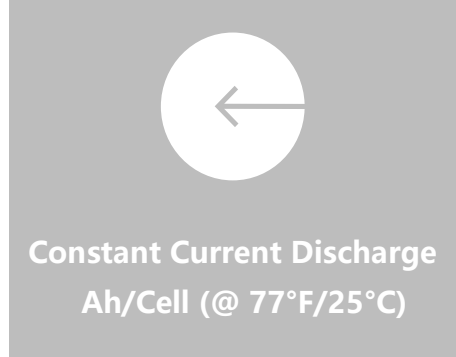
|          |                                                                                                                        |
|----------|------------------------------------------------------------------------------------------------------------------------|
|          | Structure: Compact design of shorter internal connectors among cells for lower I.R.                                    |
|          | Plate: Pasted flat type with patent high rate formula of AM supports stable performance during high current discharge. |
| Features | Separator: Improved AGM separator increases deep cycle life.                                                           |
|          | Safety Valve:Flame arrester/filter is equipped with safety valve system.                                               |
|          | Design and manufacture with DIN standards by Legacy team, for heavy load discharge applications.                       |

|                                    |                                                                                                                                    |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Parameters                         | GW12-150W(12V 40Ah)                                                                                                                |
| Cell Per Unit                      | 6                                                                                                                                  |
| Voltage Per Unit                   | 12V                                                                                                                                |
| Nominal Capacity                   | 150W@15min-rate to 1.67V per cell @25°C                                                                                            |
| Internal Resistance                | ≤9.5 mΩ(Full Charge Condition @25°C)                                                                                               |
| Max. Discharge Current             | 400A (5 sec)                                                                                                                       |
| Max. Charging Current              | 12.0A                                                                                                                              |
| Short Circuit Current              | 1100A                                                                                                                              |
| Reference Capacity                 | C10: 37.8Ah C20: 40.0Ah                                                                                                            |
| Standby Use Voltage                | 13.50 V~13.62 V @ 25°C Temperature Compensation: -3mV/°C/Cell                                                                      |
| Cycle Use Voltage                  | 14.10 V~14.40 V @ 25°C Temperature Compensation: -4mV/°C/Cell                                                                      |
| Normal Operating Temperature Range | 25°C±5°C                                                                                                                           |
| Operating Temperature Range        | Discharge and Storage : -20°C~60°C<br>Charge: 0°C~50°C                                                                             |
| Self Discharge                     | Monthly Self-discharge ratio is less than 3% at 25°C                                                                               |
| Note                               | Legacy GW batteries can be stored for up to 6 months at 25°C and recharging is recommended. Please charged batteries before using. |



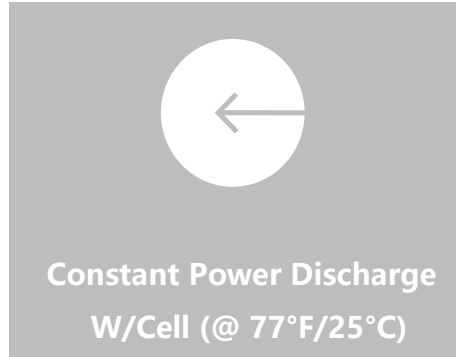
GW12-150W Imagine

| F.V/TIME | 5 MIN | 8 MIN | 10 MIN | 15 MIN | 20 MIN | 30 MIN | 60 MIN | 90 MIN |
|----------|-------|-------|--------|--------|--------|--------|--------|--------|
| 1.60V    | 149.9 | 124.1 | 108.7  | 82.95  | 67.54  | 49.79  | 28.81  | 20.68  |
| 1.65V    | 136.0 | 113.8 | 100.5  | 77.36  | 63.49  | 47.11  | 27.49  | 19.83  |
| 1.70V    | 130.2 | 109.4 | 96.87  | 75.00  | 61.71  | 45.98  | 26.94  | 19.45  |
| 1.75V    | 120.2 | 101.9 | 90.82  | 70.95  | 58.63  | 44.03  | 26.00  | 18.84  |
| 1.80V    | 110.2 | 94.36 | 84.76  | 67.14  | 55.87  | 42.16  | 25.06  | 18.23  |
| 1.85V    | 94.56 | 80.38 | 71.81  | 57.73  | 48.49  | 37.30  | 22.64  | 16.62  |

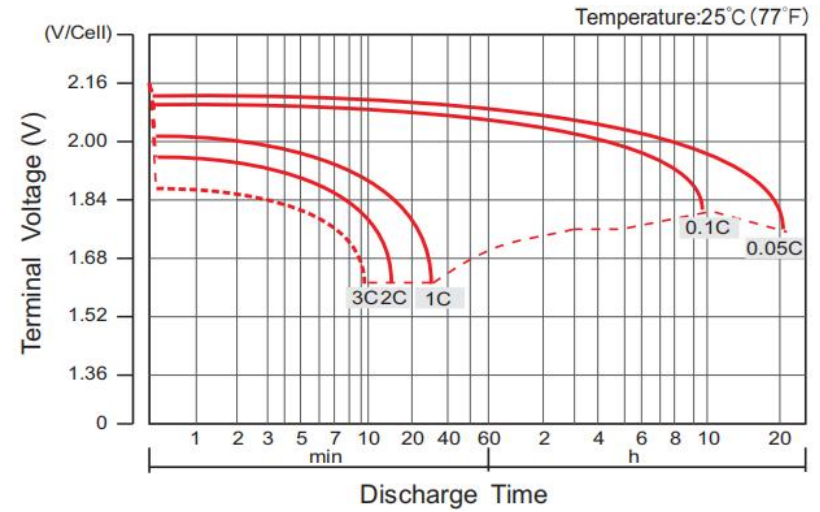


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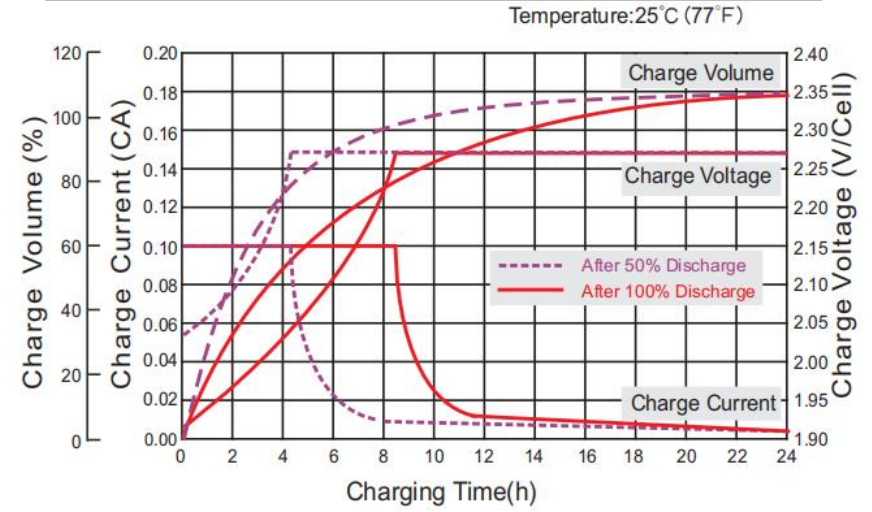
| F.V/TIME | 5 MIN | 8 MIN | 10 MIN | 15 MIN | 20 MIN | 30 MIN | 60 MIN | 90 MIN |
|----------|-------|-------|--------|--------|--------|--------|--------|--------|
| 1.60V    | 275.4 | 231.1 | 204.5  | 158.1  | 129.8  | 96.74  | 54.11  | 39.13  |
| 1.65V    | 256.4 | 216.8 | 193.0  | 150.0  | 123.9  | 92.76  | 52.08  | 37.83  |
| 1.70V    | 247.9 | 210.3 | 187.6  | 146.5  | 121.2  | 90.90  | 51.22  | 37.30  |
| 1.75V    | 232.7 | 198.7 | 178.2  | 140.2  | 116.4  | 87.90  | 49.82  | 36.30  |
| 1.80V    | 216.5 | 186.5 | 168.3  | 134.0  | 112.0  | 84.82  | 48.33  | 35.30  |
| 1.85V    | 188.6 | 161.1 | 144.5  | 116.4  | 98.11  | 75.65  | 43.96  | 32.47  |



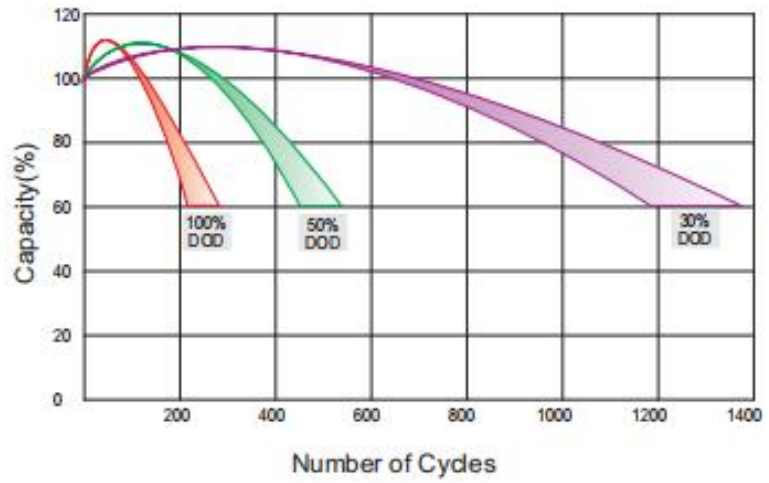
### Discharge Characteristics Curve



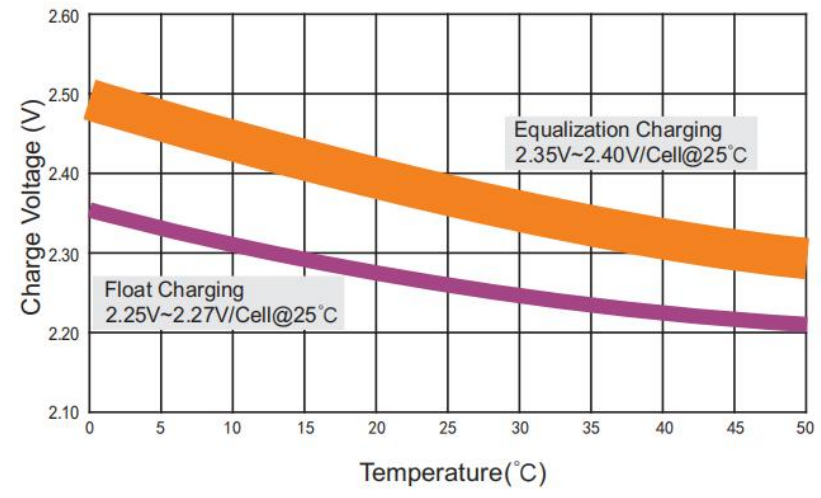
### Charge Characteristics Curve For Standby Use(IU)



### Cycle Life in Relation to Depth of Discharge

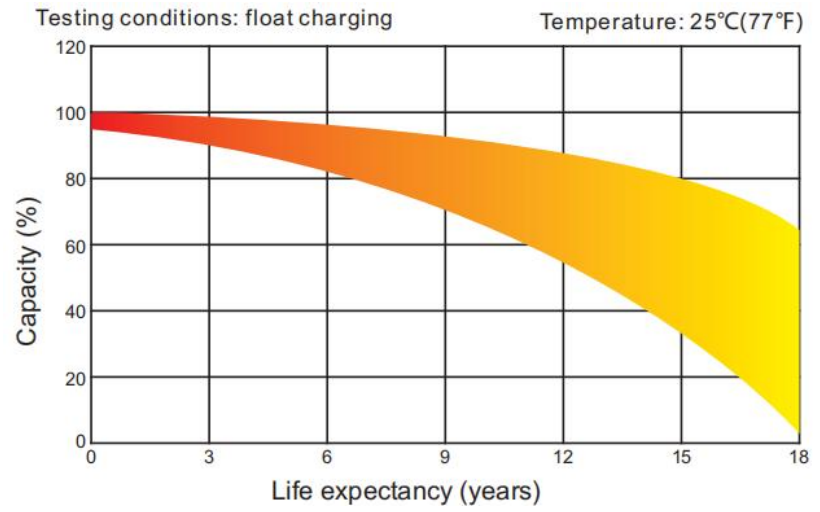


### Relationship Between Charging Voltage and Temperature

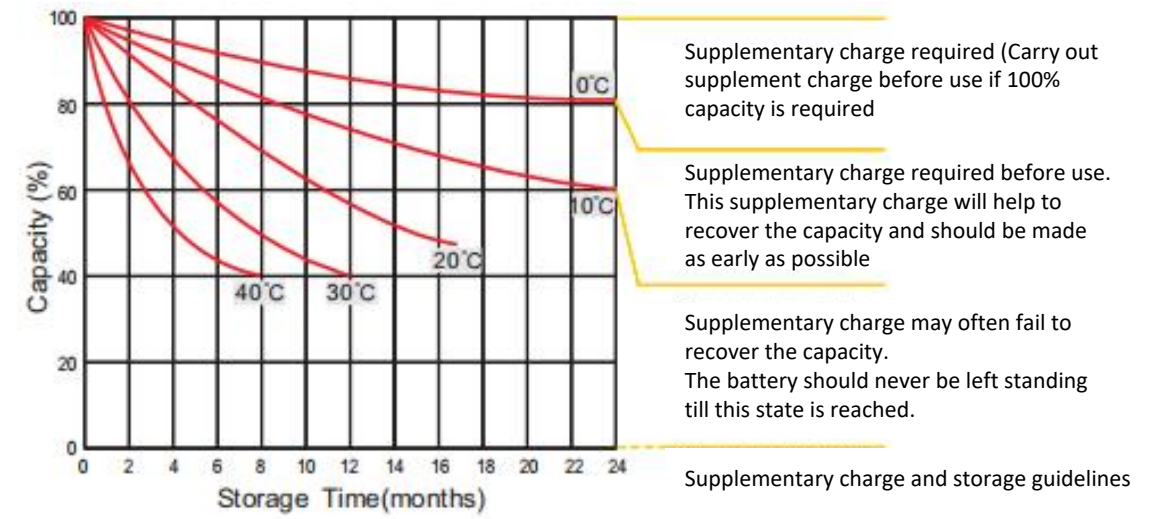


Note: The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice. Legacy reserves the right to explain and update the latest information.

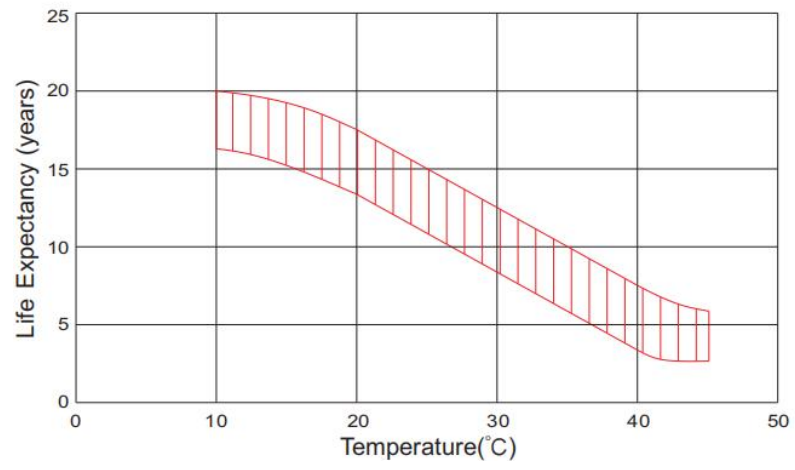
### Life Characteristics of Standby Use



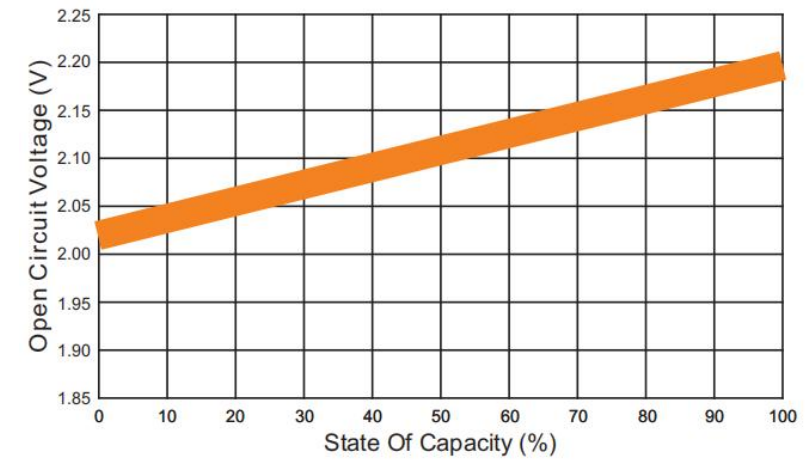
### Storage Characteristics



### Effect of Temperature on Longterm life



### Relationship of OCV and State of Charge(20°C)



Note: The above data are average values, and can be obtained within 3 charge/ discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice. Legacy reserves the right to explain and update the latest information.



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